



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20513  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,265	10/19/2001	Tomoyuki Miyasaka	N&H Case 421	4200

7590 02/13/2003  
FLYNN, THIEL, BOUTELL & TANIS, P.C.  
2026 Rambling Road  
Kalamazoo, MI 49008-1699

EXAMINER

PHAM, LEDA T

ART UNIT PAPER NUMBER

2834

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/083,285

Examiner

Leda T. Pham

Applicant(s)

MIYASAKA, TOMOYUKI

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

1. Figure 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A "locus circle" (understood as a perimeter) cannot compare with an "inside diameter" (understood as length) of the field magnet as recited in claim 6.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackermann (U.S. Patent No. 5,099,165) in view of Sunaga (U.S. Patent No. 5,327,035) further in view of H. E. Barnes (U.S. Patent No. 3,064,150).

Ackermann discloses a vibrating motor comprising a field magnet having 6 magnetic poles such that S and N magnetic poles are alternately magnetized in a circumference direction (figure 1), a rotating shaft (17), an armature core (9) having three salient poles (11) consisting of a central salient pole and a pair of auxiliary salient poles which are spaced apart from said central salient pole on either side (figure 1), and in starting, the same magnetic pole as the magnetic pole of said field magnet generates in a facing surface of said central salient pole and a repulsive force occurs so that said armature core is urged to rotate (figure 1- 2). However, Ackermann does not clearly disclose said three salient poles being shifted and arranged around said rotating shaft with non-centrosymmetry, and the facing gap between said central salient pole and said field magnet is formed narrower than facing gaps between said auxiliary salient poles and said field magnet, and an exciting force of said central salient pole is greater than that of said auxiliary salient poles.

Sunaga discloses a vibrator motor (figure 1 - 2) having three salient poles (1, 2, and 3) consisting of a central salient pole (1) and a pair of auxiliary salient poles (2, and 3) which are spaced apart from said central salient pole on either side (figure 1), and said three salient poles being shifted and arranged around said rotating shaft (s) with non-centrosymmetry for providing a small vibrator motor with no outside eccentric weight.

Furthermore, H.E. Barnes discloses the three salient poles (figure 2) wherein the facing gap between said salient poles (16 and 17) and said field magnet (3) is formed narrower than facing gaps between said salient pole (15) and said field magnet (3), to produce an exciting force of said salient poles (16, 17) is greater than that of said salient pole (15).

Since Ackermann, Sunaga and H.E. Barnes are all from the same field of endeavor; the purpose disclosed by Ackermann and Sunaga would have been recognized in the pertinent art of H.E. Barnes.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the vibrator motor of Ackermann and Sunaga with a facing gap between central salient pole and a field magnet is formed narrower than facing gaps between auxiliary salient poles and field magnet. Doing so would produce an exciting force of central salient pole greater than the other exciting force of auxiliary salient poles.

Referring to claim 2, H. E. Barnes discloses a vibrator motor wherein said facing surface of said central salient pole which is facing to said field magnet is formed approximately arc-shaped; and each facing gap length on either side in a circumferential direction of said central salient pole is different (figure 2).

Referring to claim 3, Sunaga discloses the claimed invention except for the added limitation of the width of rib of central salient pole is greater than that of auxiliary salient poles. Figure 2, Sunaga discloses the width of rib (1b, 1c) of auxiliary salient poles is greater than that of the central salient pole (1a). Doing so would increase the mass and the turns of the winding in the pole. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the width of rib of the central salient pole greater than that the auxiliary salient poles as recited in the above claim. Doing so would increase the mass and the turn of the winding in the pole. Also, it has held that a change in size or shape is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Referring to claim 4, Sunaga discloses a vibration motor wherein a number of turns of said coil which is wound on said central salient pole is bigger than that of said coil which is wound on each of said auxiliary salient poles to make an exciting force be large (lines 14- 16, column 3).

Referring to claim 5, H.E. Barnes discloses a vibration motor wherein a locus circle which is made by facing surfaces between said field magnet and said three salient poles is formed in an approximately oval; and a center of said field magnet and a center of said locus circle approximately correspond with said rotating shaft (figure 2).

Referring to claim 6, H.E. Barnes discloses a vibration motor wherein a locus circle which is made by facing surfaces between said field magnet and said three salient poles is formed smaller than inside diameter of said field magnet, a center of said field magnet almost correspond with said rotating shaft; and a center of said locus circle shifts toward said central salient pole from said rotating shaft (figure 1).

#### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (703) 305-4864. The examiner can normally be reached on M-F (7:30-5:00) first Friday Off.

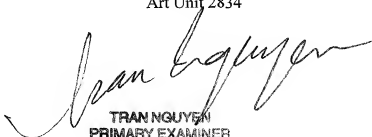
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-9176 for regular communications and (703) 305-1341 for After Final communications.

Art Unit: 2834

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

Leda T. Pham  
Examiner  
Art Unit 2834

LTP  
February 8, 2003



TRAN NGUYEN  
PRIMARY EXAMINER